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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,561	05/28/2002	Rainer Mangold		3281

7590 06/06/2005

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EXAMINER	
PIERCE, JEREMY R	
ART UNIT	**PAPER NUMBER**
1771	

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/089,561
Filing Date: May 28, 2002
Appellant(s): MANGOLD ET AL.

MAILED
JUN 06 2005
GROUP 1700

Denise M. Glassmeyer
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 16, 2005.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of the Claimed Subject Matter

The summary of invention contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the issues in the brief is correct.

(7) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Prior Art of Record

US 4,883,707	Newkirk	11-1989
US 5,989,688	Barge et al.	11-1999
US 5,057,357	Winebarger	10-1991
US H1698	Lloyd et al.	11-1997
DE 4,338,326	Hermann	11-1993

EP 685,215 Foley et al. 12-1995

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 1, 4, 5, 7-10, and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Newkirk (U.S. Patent No. 4,883,707).

Newkirk discloses a nonwoven fabric comprising a carded web layer having an average denier of 3 or greater bonded to a thermoplastic fibrous layer having an average denier of 3 or less (column 2, lines 39-44). The low denier layer meets Appellant's claim limitations for the upper layer because the claimed range of at most 3.5 dtex falls within less than 3 denier (approximately equals 3.3 dtex) and the low denier layer comprises bicomponent fibers at 70% by weight because there is optionally 30% single component fiber (column 3, lines 42-55). The high denier layer meets Appellant's claim limitations for the lower layer because the claimed fiber linear density range of between 4 and 10 dtex falls within 3 denier or greater (approximately equals 3.3 dtex or greater) taught by Newkirk and the fibers are bicomponent fibers with the higher melting component made from polyester (column 3, lines 20-34). The examples provided by Newkirk, such as BASF Product 1050 is made specifically from PET (See EP 685,215 to Foley et al. at page 4, lines 40-41). Also, the lower melting point part of the bi-component fibers are the only ones that melt upon heating, so they would have a lower melting point than the mono-component fibers (column 4, lines 2-6). With regard to claims 4 and 5, Newkirk discloses the low denier layer has a basis weight in the range of 5 to 20 grams per square yard (column 2, line 59). With regard to claims 7-9,

the high denier layer may be comprised entirely of bicomponent fibers (column 3, lines 4-7). With regard to claim 10, the fiber may be sheath/core (column 3, line 6). With regard to claim 14, the lower melting point component may be polyethylene (column 3, line 25). With regard to claim 15, the coverstock disclosed by Newkirk is used with an absorbent layer and an impermeable outer covering (column 1, lines 15-18).

B. Claims 1, 4-10, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barge et al. (U.S. Patent No. 5,989,688).

Barge et al. disclose a composite nonwoven for controlled acquisition and distribution of liquid comprising a first support layer and a first bulky layer, the two layers being bonded by thermobonding (Abstract). The support layer may function as the coverstock in an absorbent article (column 4, lines 32-39), and would therefore be the body-contacting layer. Barge et al. disclose the support layer fibers preferably have a dtex of 1.7 to 3.3 (column 6, line 35). Barge et al. also disclose the support layer may be made from a mixture of single component fibers and bicomponent fibers (column 6, lines 18-28). However, Barge et al. fail to disclose that this mixture comprises 30-70% by weight bicomponent fibers. However, discovering the optimum ratio of bicomponent fibers to single component fibers would be an obvious matter of optimizing a result effective variable. Addition of more bicomponent fibers in the nonwoven would strengthen the bonding of the fabric at the expense of loss of good feel provided by mono-component fibers and increased stiffness. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use between 30-70% bicomponent fibers in the support layer of Barge et al. since Barge et al. disclose

using a blend of single component and bicomponent fibers and it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. The bulky layer meets the limitations of the lower layer because Barge et al. disclose the fibers are in the range of 5-12 dtex (column 6, lines 63-64) and may consist essentially of bicomponent fibers (column 6, line 46) that contain PET (column 6, lines 7-11). With regard to claims 4 and 5, Barge et al. disclose the support layer may weight between 6 and 20 grams per square meter (column 7, line 65 –column 8, line 7). With regard to claim 6, the fibers are treated to be hydrophilic (column 7, lines 38-39). With regard to claims 7-9, Barge et al. disclose the bulky layer may consist essentially of bicomponent fibers (column 6, line 46). With regard to claim 10, the fibers may be sheath/core fibers (column 7, lines 41-43). With regard to claim 14, the lower melting part may be polyethylene (column 6, line 9). With regard to claim 15, Newkirk discloses hygienic absorbent products also comprise an absorbent core and an impermeable backsheet (column 1, lines 15-23).

C. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newkirk in view of Winebarger (U.S. Patent No. 5,057,357).

Newkirk discloses pattern bonding through air (column 4, lines 13-24), but fail to disclose creating a textured pattern through calendering. Winebarger teach that a softer coverstock may be achieved by calendering the nonwoven and creating a pattern with a bond area of 7.5 to 30% (column 5, lines 13-16). It would have been obvious to a person having ordinary skill in the art at the time of the invention to create a textured

pattern by calendering the coverstock of Newkirk in order to create a softer material, as taught by Winebarger.

D. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barge et al. in view of Winebarger.

Barge et al. disclose the preferred method of bonding is by thermobonding using calender bonding (column 9, lines 19-22), but do not disclose forming a textured pattern. Winebarger teach that a softer coverstock may be achieved by calendering the nonwoven and creating a pattern with a bond area of 7.5 to 30% (column 5, lines 13-16). It would have been obvious to a person having ordinary skill in the art at the time of the invention to create a textured pattern by calendering the coverstock of Barge et al. in order to create a softer material, as taught by Winebarger.

E. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Newkirk in view of Barge et al.

Newkirk fails to disclose treating the upper layer with a hydrophilic finish. Barge et al. disclose that coverstock fabrics are preferably treated to be hydrophilic in order to better acquire and distribute aqueous liquids such as urine (column 7, lines 33-35). It would have been obvious to a person having ordinary skill in the art at the time of the invention to provide the topsheet of Newkirk with a hydrophilic finish in order to create a coverstock that can better acquire and distribute aqueous liquids, as taught by Barge et al.

F. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Newkirk in view of Lloyd et al. (U.S. Statutory Invention Reg. No. H1698).

Newkirk does not disclose the lower layer to contain eccentric core/sheath fibers. Lloyd et al. teach that bicomponent core/sheath fibers having an eccentric core are preferably used in absorbent articles to provide a lower density structure due to the greater tendency of such fibers to take on a curled shape (column 8, lines 2-7). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use eccentric sheath/core fibers in the absorbent article of Newkirk in order to provide a lower density structure for acquiring and distributing liquids, as taught by Lloyd et al.

G. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barge et al. in view of Lloyd et al.

Barge et al. do not disclose the lower layer to contain eccentric core/sheath fibers. Lloyd et al. teach that bicomponent core/sheath fibers having an eccentric core are preferably used in absorbent articles to provide a lower density structure due to the greater tendency of such fibers to take on a curled shape (column 8, lines 2-7). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use eccentric sheath/core fibers in the absorbent article of Barge et al. in order to provide a lower density structure for acquiring and distributing liquids, as taught by Lloyd et al.

H. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newkirk in view of Hermann et al. (DE 4,338,326, with an English translation provided).

Newkirk discloses the limitations of the fluid-permeable layer as set forth above in section 4, but Newkirk fails to disclose the structure for the absorbent core or retaining layer. Hermann et al. disclose an absorbent core material having multiple

layers. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the absorbent core of Hermann et al. in the product of Newkirk in order to provide an absorbent product with sufficient acquisition and distribution properties, as taught by Hermann et al. (English translation, p. 3). With regard to claim 16, the upper layer 26 of Hermann et al. is made of cross-linked cellulose to provide distribution (English translation, p. 6). Hermann et al. teach adding superabsorbent material to upper layer 26 (English translation, p. 9), but do not disclose the amount. The amount of superabsorbent material is a result effective variable that would affect the absorption of liquid properties and the distribution properties of the upper layer. Hermann et al. recognize this fact because the upper layer is designed to distribute liquid, whereas the lower layer is design to store liquid, and the presence of superabsorbent particles should decrease as one moves from the storage layer up to the distribution layer (English translation, p. 7). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use between 8 and 15% superabsorbent material in the upper layer in order to provide optimal absorbency and distribution of liquid, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. With regard to claim 17, Hermann et al. teach a lower layer 28 of conventional cellulose fibers and superabsorbent being present in an amount between 10 and 98% by weight (English translation, p. 7). With respect to the ratio of fiber mass to fluid storage limitations recited in claims 16 and 17, although Hermann et al. do not explicitly teach the ratio of fiber mass to fluid storage, it is reasonable to presume that said limitations are inherent to the invention. Support for

said presumption is found in the use of similar materials (i.e. cellulose) and in the similar production steps (i.e. cross-linking for the upper layer and using conventional cellulose for the lower layer) used to produce the absorbent core. The burden is upon the Appellant to prove otherwise. In the alternative, adjusting the fluid absorption capabilities of the cellulosic fiber would be optimizing a result effective variable. Hermann et al. specifically disclose that the absorption capacity of the cellulose fibers of the upper layer 26 is lower than that of the cellulosic fibers in the lower layer 28 (English translation, p. 4). It would have been obvious to a person having ordinary skill in the art at the time of the invention to provide the upper layer with fluid to fiber ratio of 0.6 to 0.9 and the lower layer with a fluid to fiber ratio of 1.0 to 1.4, since Hermann et al. disclose that the upper layer should have a smaller value than the lower layer, and it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. With regard to claim 18, layer 28 is disposed beneath layer 26 (Figure 1). With regard to claim 19, Hermann et al. disclose an additional lower layer 22 made of cellulosic fibers that may contain 0% superabsorbent material (English translation, p. 5 and Figure 1).

I. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barge et al. in view of Hermann et al.

Barge et al. disclose the limitations of the fluid-permeable layer as set forth above in section 6, and also teach the addition of various layers to obtain desired characteristics of acquisition and distribution (column 1, lines 15-27). But Barge et al. fail to disclose the structure for the absorbent core or retaining layer. Hermann et al.

disclose an absorbent core material having multiple layers. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the absorbent core of Hermann et al. in the product of Barge et al. in order to provide an absorbent product with sufficient acquisition and distribution properties, as taught by Hermann et al. (English translation, p. 3). With regard to claim 16, the upper layer 26 is made of cross-linked cellulose to provide distribution (English translation p.5). Hermann et al. teach adding superabsorbent material to upper layer 26 (column 4, lines 33-39), but do not disclose the amount. The amount of superabsorbent material is a result effective variable that would affect the absorption of liquid properties and the distribution properties of the upper layer. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use between 8 and 15% superabsorbent material in the upper layer in order to provide optimal absorbency and distribution of liquid, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. With regard to claim 17, Hermann et al. teach a lower layer 28 of conventional cellulose fibers and superabsorbent being present in an amount between 10 and 98% by weight (English translation, p. 7). With respect to the ratio of fiber mass to fluid storage limitations recited in claims 16 and 17, although Hermann et al. do not explicitly teach the ratio of fiber mass to fluid storage, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. cellulose) and in the similar production steps (i.e. cross-linking for the upper layer and using conventional cellulose for the lower layer) used to produce the absorbent core. The burden is upon the

Appellant to prove otherwise. In the alternative, adjusting the fluid absorption capabilities of the cellulosic fiber would be optimizing a result effective variable. Hermann et al. specifically disclose that the absorption capacity of the cellulose fibers of the upper layer 26 is lower than that of the cellulosic fibers in the lower layer 28 (English translation, p. 4). It would have been obvious to a person having ordinary skill in the art at the time of the invention to provide the upper layer with fluid to fiber ratio of 0.6 to 0.9 and the lower layer with a fluid to fiber ratio of 1.0 to 1.4, since Hermann et al. disclose that the upper layer should have a smaller value than the lower layer, and it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. With regard to claim 18, layer 28 is disposed beneath layer 26 (Figure 1). With regard to claim 19, Hermann et al. disclose an additional lower layer 22 made of cellulosic fibers that may contain 0% superabsorbent material (English translation, p. 5 and Figure 1).

(10) Response to Argument

Appellant argues that the Examiner is silent regarding the present claim limitation that the bi-component fibers of the lower layer are characterized as having a denier between 4 and 10 and it is not clear where Newkirk provides support for this limitation. However, Newkirk teaches bicomponent fibers comprising PET (column 3, lines 20-34) and that fibers in the high denier layer have a denier of 3 or greater (column 2, lines 40-44). A fiber with a denier of 3 is equal to a fiber with a dtex of 3.3. Since Newkirk teaches using fibers with a dtex of 3.3 or greater, the reference anticipates the claim limitation of between 4 and 10 dtex. Otherwise, the phrase "or greater" would not have

any practical weight. Newkirk is read to include values that are greater than 3.3 dtex, and between 4 and 10 dtex realistically fall within a range of 3.3 or greater.

Appellant argues that the Examiner does not contend that Newkirk teaches bi-component fibers with a higher melting component being made from PET. However, the examples provided by Newkirk, such as BASF Product 1050, comprise PET as its higher melting component (see EP 685,215 to Foley et al. at page 4, lines 40-41).

Appellant points out that Newkirk teaches addition of greater than 25-30 percent matrix fiber may reduce the strength to a level of concern for use as a traditional diaper topsheet. Appellant then argues that claim 1 specifies the upper layer contains a percentage of mono-component fibers in amounts of 30% or greater in direct contradiction to the teaching of Newkirk. This argument has several flaws. The first is that there is no recitation in claim 1 that there be 30% or greater mono-component fibers in the upper layer. Claim 1 requires the bi-component fibers to be present in an amount between 30 and 70%. Claim 1 does not provide any minimum amount of mono-component fibers. Only if the claim were read as closed would there be a presumption that the mono-component fibers must be present an amount of 30% or greater. However, nothing in the claim indicates an intention of the claim being closed to other materials. Therefore, other materials may be present in the upper layer and there is no requirement that the layer comprise mono-component fibers in an amount of 30% or greater. The second flaw is that Newkirk teaches addition of matrix fibers in an amount of 30% (column 3, lines 49-52). Even if the claim were read as being closed to other

materials, Newkirk would still anticipate a claim requirement of at least 30% mono-component fibers.

Appellant argues that Newkirk specifically teaches that bi-component materials for both layers have a denier of less than 3. However, Newkirk teaches that the fibers of the high denier layer have a denier of 3 or greater (column 2, lines 39-42). As examples, Newkirk only discloses bicomponent fibers having denier of 3 (column 3, lines 20-34). However, Newkirk cannot be limited to the examples. If "3 or greater" is to be given any weight, it must be read to include between 4 and 10 dtex because 3 denier is equal to 3.3 dtex, and greater than 3.3 dtex should not be limited to between 3.3 and 3.9 dtex.

Appellant asserts that Newkirk limits the bi-component materials, by specification definition, to having a denier of 3 or less, as set forth in column 3, lines 20-24. However, the portion of the reference Appellant points to only discusses a preferred example. Nowhere does Newkirk teach that bi-component fibers must have a denier of 3 or less. Newkirk does teach that the fibers in the high denier layer have a denier of 3 or greater (column 2, lines 39-42) and that this layer is generally made from bicomponent fibers, but may include mono-component fibers (column 3, lines 43-55). Newkirk teaches that the high denier layer comprises fibers having a dtex of 3.3 or greater, so the claimed limitation of between 4 and 10 dtex is anticipated because it realistically falls within the range taught by Newkirk.

Appellant argues that the claimed invention requires the percentage of bi-component fibers to be between 30 and 70 percent with the remainder being mono-

component fibers. As stated before however, claim 1 does not preclude the presence of other materials, so the percentage of mono-component fibers is not limited to 30% or greater in the claim. Even if the claim were so limited, Newkirk still anticipates the claim because Newkirk teaches using 30% mono-component fibers.

Appellant argues that Newkirk lacks any teaching or suggestion of using bi-component fibers having a denier of 4 to 10 dtex in the lower layer. However, Newkirk teaches using bicomponent fibers with a dtex of 3.3 or greater in the high denier layer (column 2, lines 39-42), so the claim limitation is anticipated.

Appellant argues that a careful reading of the Newkirk reference yields no teaching or suggestion of the percentage of bi-component fibers set forth in either claims 7, 8, or 9. However, Newkirk et al. teaches that the low denier layer may be, but does not need to be made entirely of bicomponent fibers (column 3, lines 43-45).

Appellant argues that Newkirk lacks any teaching or suggestion of bi-component sheath/core fibers having a denier of 4 to 10. However, the claimed limitation Appellant refers to actually recites a dtex of 4 to 10, and not denier. The Examiner repeats the argument that a dtex of "greater than" 3.3 anticipates the claimed range of between 4 and 10.

Appellant argues that Newkirk directs the artisan to polyester bi-component fibers having a denier of between 1.7 and 3. However, Newkirk teaches one layer has bi-component fibers with an average denier of 3 or greater, while the other layer has bi-component fibers with an average denier of 3 or less (column 2, lines 39-44). Newkirk only provides the 3-denier bi-component fiber as an example of a fiber that meets the

former layer requirements, and the 1.7-denier bi-component fiber as an example of a fiber that meets the latter layer requirements. The teachings of Newkirk are not limited to only a few examples because the reference specifically teaches that using fibers with a denier greater than 3 (i.e. dtex greater than 3.3) is known.

Appellant argues that Newkirk fails to teach a composite material according to claim 15 for reasons already discussed above. The Examiner maintains the position that Newkirk anticipates the claim for the reasons cited above in the rejection and the arguments already set forth.

Appellant argues that the body contacting layer of Barge, rather than having a denier that is at most 3.5 dtex as set forth in claim 1, will have fibers of a fineness ranging between 1 and 7. However, Barge teaches that the support layer fibers will preferably have a fineness of 1.7 to 3.3 dtex (column 6, lines 32-35). This falls within Appellant's claimed range of at most 3.5 dtex.

Appellant argues that Barge teaches the bulky layer includes bi-component fibers that will typically have a similar fineness to that of the upper or support layer. From this, Appellant then concludes that the fineness of the fibers in the upper and lower layers will be the same. However, Barge teaches that when a first bulky layer lies next to a support layer to provide acquisition of liquid, fiber fineness in the bulky layer should be between 5 and 12 dtex (column 6, lines 60-64). Thus, while Barge may desire fiber fineness of the bi-component fibers to be similar, Barge also teaches they need not be the same. Different fineness values seem required when the first bulky layer is to have liquid acquisition properties.

Appellant argues that Barge lacks any teaching of careful selection among components in the present invention, specifically, the upper layer containing 30 to 70 percent bi-component fibers with a denier of 3.5 dtex or less. However, the broad weight range of 30 to 70 percent is not indicative of any criticality or careful selection. Furthermore, a person of ordinary skill in the art knows that addition of more bicomponent fibers in the nonwoven would strengthen the bonding of the fabric at the expense of loss of good feel provided by mono-component fibers and increased stiffness. This is the nature of what a bi-component fiber provides. As set forth above in the rejection, adjusting the amount of bi-component fiber in a layer would be optimization of a result effective variable, and therefore an obvious modification. Barge already teaches using a blend of bi-component and mono-component fibers in the support layer (see column 6, lines 18-28). Optimizing the relative amounts in that blend is obvious for the reasons set forth above. Additionally, it should be noted that the percentage of bi-component fibers in other layers, such as the bulky layer, is disclosed to be between 10 and 65% by weight (column 6, lines 41-42). Thus, Appellant's recitation of between 30 and 70% bi-component fibers provides nothing novel or non-obvious over the prior art.

Appellant asserts that utilization of bi-component fibers in the lower layer that have a melt point lower than the melt point of the mono-component fibers of the upper layer result in a composite in which significant bonding exists as bi-component fiber to bi-component fiber. Appellant argues that this feature of claim 1 is not taught by Barge. However, bi-component fibers are typically used as binder fibers in the art of nonwoven

fabrics because they comprise a material with a low melting point that can melt and thermally bond all fibers in the fabric together. Barge teaches bi-component fibers to be binder fibers (column 6, line 3).

Appellant argues that Barge directs a skilled artisan away from a teaching where the lower layer includes a minimum of 40 percent by weight bi-component fibers. However, Barge teaches bi-component fibers may be present in a range of 10-65% by weight of the fabric, so it is unclear how providing 40 percent by weight is unobvious. The prior art references are not limited to preferred embodiments.

Appellant argues that Barge teaches the matrix fibers in the bulky layer will typically have a fineness in the range of 1 to 12 dtex, but the reference is silent regarding the specific denier or fineness of the binder or bi-component fibers. However, Barge teaches that the bulky layer comprises both binder fibers and matrix fibers (column 6, lines 39-40). Barge also teaches that when the bulky layer is designed for fluid acquisition, the fibers in that layer will have a fineness ranging from 5 to 12 dtex (column 6, lines 60-64). There is no reason to presume that this fineness range is limited to only matrix fibers and not both matrix fibers and binder fibers.

Appellant argues that the first bulky layer range of 5 to 12 dtex, as disclosed by Barge, refers to the general fibers rather than specific bi-component fibers. The Examiner disagrees. There is no reason to presume that the bi-component fibers cannot fall within this claimed range as well.

Appellant argues that Barge suggests that mono-component and bi-component fibers can be mixed without suggesting percentages or formulations. However, the Examiner has set forth reasons for the claimed percentages of fibers to be obvious.

Appellant argues that because Newkirk teaches away from using matrix fibers at levels greater than 25 to 30%. However, Newkirk was not used in conjunction with Barge to reject claim 1.

Appellant argues that there is only one mention of use of PET/PE bi-component fibers in the lower layer from Example 3b. The Examiner notes that this fiber has a dtex of 5.3, which anticipates the claimed limitation of a bi-component fiber having fineness greater than 3.5 dtex. Appellant argues that where bi-component fibers are used in the bulky layer, the amounts fall well below 20%. However, the rejection of the percentage of bi-component fibers to mono-component fibers is based on obviousness, as set forth above in the rejection.

Appellant argues that Barge does not appreciate the adequate rigidity and resilience of the composite of the present invention, as well as the outstanding bonding of the fibers to each other. However, Barge meets the structural limitations found in the claims as set forth in the rejections.

Appellant argues that Barge fails to appreciate the claimed denier values found in claims 12 and 13. However, Barge teaches that the fibers of the bulky layer designed to acquire liquid have a dtex in the range of 5 to 12. This anticipates Appellant's claims.

Appellant argues that Winebarger lacks any teaching or suggesting of employing calendaring to a composite material having distinct upper and lower layers. However,

Winebarger teaches a method for providing a soft coverstock material by passing a fibrous web of thermally bondable fibers through a pair of heated calendar nips, and fusing portions of the web in a pattern of bond areas. The material of Newkirk is a fibrous web with thermally bondable fibers, so there is no reason to believe that the material of Newkirk could not be used in the process of Winebarger. Winebarger does not preclude calendaring fibrous webs with multiple layers.

Appellant argues that Winebarger fails to teach various limitations found in claim 1. However, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. Winebarger is not used to show these features.

Appellant argues that the calendaring operation outlined by Winebarger destroys loft and would contravene the teaching of Newkirk. However, the loft of a fabric that is calendered according to the process of Winebarger would not be destroyed at all because the fabric pattern bonded. Thus, only a small percentage of the fabric is actually compressed, and the remainder would retain its full loft. Additionally, Newkirk teaches the advantages to using pattern bonding and also disclose that compression, while not preferred, may promote bonding (column 4, lines 2-47).

Appellant argues that Winebarger fails to appreciate that a composite material having texture on its upper surface can provide appropriate feel while yielding a cohesive composite material having superior liquid transport capabilities and resiliency. However, one cannot show nonobviousness by attacking references individually where

the rejections are based on combinations of references. Winebarger is not used to show these features, which are also not claimed.

Appellant argues that the combination of Newkirk in view of Barge does not render obvious claim 6. However, the reasons that are given by the Appellant for this failure have already been discussed above with regards to the references separately.

Appellant argues that Lloyd lacks any teaching of a composite material in which a lower layer is made of eccentric bi-component fibers while an upper layer is differently configured. Appellant also argues that Lloyd fails to teach various features found in claim 1. However, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. The rejections are based on the combinations of Newkirk with Lloyd and Barge with Lloyd.

Appellant argues that Hermann lacks any teaching of a nonwoven cover having a composite structure. However, Hermann is not used to show the feature of the cover layer. Newkirk is used to show the feature of the coverstock material. Newkirk meets the limitations of the fluid permeable layer recited in the last lines 8-11 of the claim, and Hermann meets the limitations of the fluid retention layer described in lines 3-7 of the claim. Hermann discloses that the absorbent core improves fluid retention properties, so it would be obvious to use that absorbent core in the composite of Newkirk, as set forth above in the rejection.

Appellant argues that there is no need to additionally adopt a composite top sheet in the material of Hermann. However, the modification being discussed by Appellant is a modification of the Hermann reference in view of Newkirk. The rejection

used by the Examiner indicated that the Newkirk reference is being modified by the teachings of Hermann. Newkirk teaches a coverstock material. In order to find any use, a coverstock material would have to be combined with additional layers to form an absorbent structure. Hermann provides an absorbent product with sufficient acquisition and distribution properties, so using the material of Hermann underneath the coverstock of Newkirk would be obvious, as set forth above in the rejection.

Appellant argues that Newkirk lacks any teaching of utilizing a double-layered cover overlying cellulose fibers containing superabsorbent particles (i.e. all the features of claim 16). However, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

In response to Appellant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Appellant's disclosure, such a reconstruction is proper.

Appellant argues that Barge does not teach the composite material of claim 16 and that Hermann does not teach a body contacting double layer structure. However, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Jeremy R. Pierce
June 1, 2005

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